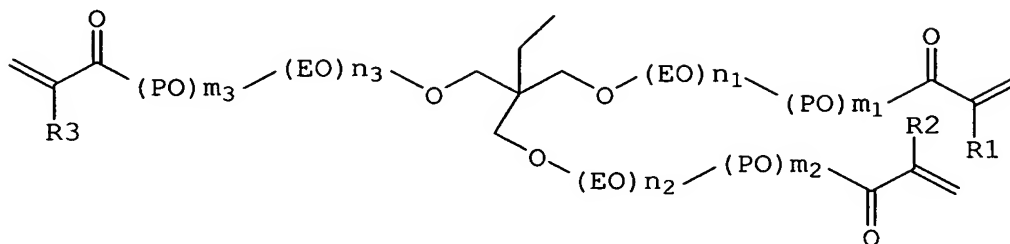


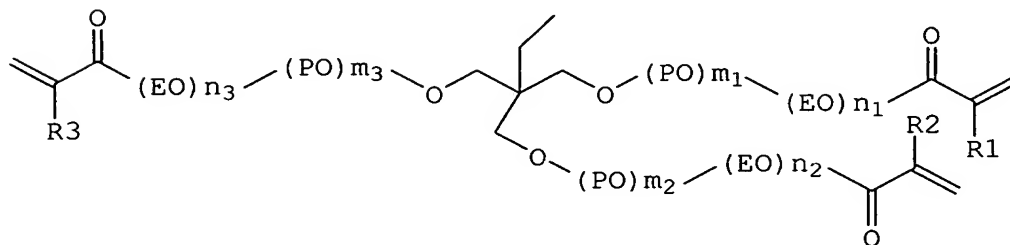
IN THE CLAIMS:

1. (Currently amended) An ester F of the formula Ib



Ib

or



Ic

~~where~~ wherein EO is O-CH₂-CH₂-,

PO is independently at each instance O-CH₂-CH(CH₃) or O-CH(CH₃)-CH₂-,

n₁ + n₂ + n₃ is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, or 60,

m₁ + m₂ + m₃ is 4, 5, 6, 7, 8, 9, 10, 11, 12, or 13,

R₁, R₂, and R₃ are independently H or CH₃.

2. (Cancelled)

3. (Currently amended) ~~An~~ The ester F as ~~per either of claims claim 1 and 2,~~ wherein n_1 , n_2 , and n_3 are independently 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20.

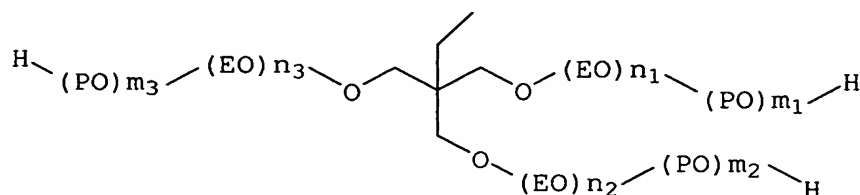
4. (Currently amended) ~~An~~ The ester F as ~~per either of claims claim 1 to 3,~~ wherein m_1 , m_2 , and m_3 are independently 1, 2, 3, 4, or 5.

5. (Currently amended) ~~An~~ The ester F as ~~per either of claims claim 1 to 4,~~ wherein $m_1 + m_2 + m_3$ is 5 or 10.

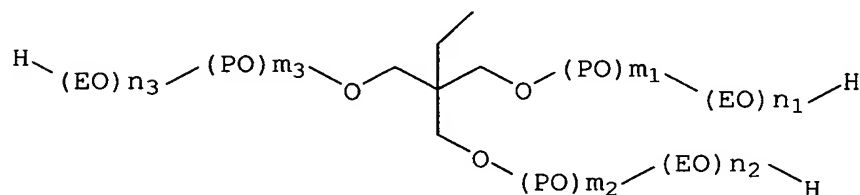
6. (Currently amended) ~~An~~ The ester F as ~~per either of claims claim 1 to 5,~~ wherein $n_1 + n_2 + n_3$ is 30 or 50.

7. (Currently amended) ~~An~~ The ester F as ~~per either of claims claim 1 to 6,~~ wherein R_1 , R_2 , and R_3 are identical and preferably H.

8. (Currently amended) A process for preparing an ester F ~~as per any of claims claim 1 to 7 of~~ from an alkoxyolated trimethylolpropane of the formula IIb or IIc



IIb



IIc

~~where~~ wherein EO, PO, n1, n2, n3, m1, m2, and m3 are each as defined in ~~any of claims claim 1 to 7,~~

~~with~~ and (meth)acrylic acid, comprising the steps of

a) reacting alkoxyolated trimethylolpropane IIb or IIc with (meth)acrylic acid in the presence of at least one esterification catalyst C ~~and of,~~ at least one polymerization inhibitor D, and optionally ~~also of~~ a water-azeotroping solvent E to form an ester F,

b) optionally removing from the reaction mixture some or all of the water formed in a), during and/or after a),

f) optionally neutralizing the reaction mixture,

h) when a solvent E ~~was~~ is used, optionally removing ~~this~~ the solvent E by distillation, and/or

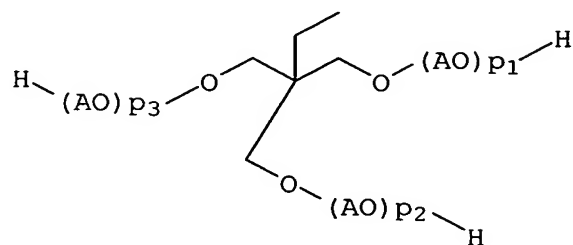
i) stripping the reaction mixture with a gas which is inert under the reaction conditions.

9. (Currently amended) A The process ~~as claimed in of~~ claim 8, wherein

~~the~~ a molar excess of (meth)acrylic acid to alkoxylated trimethylolpropane is at least 3.15:1, and

the optionally neutralized (meth)acrylic acid present in the reaction mixture after the last process step substantially remains in the reaction mixture.

10. (Currently amended) A process for preparing an ester F of alkoxyated trimethylolpropane of the formula IIa



IIa

~~where~~ wherein AO is for each AO independently EO, PO, and BO,

~~where~~ EO is O-CH₂-CH₂-

PO is independently at each instance O-CH₂-CH(CH₃)- or O-CH(CH₃)-CH₂-,

BO is independently at each instance O-CH₂-CH(CH₂-CH₃)- or O-CH(CH₂-CH₃)-CH₂-

p₁ + p₂ + p₃ is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, or 75,

~~with~~ and (meth)acrylic acid, comprising the steps of

a) reacting alkoxyated trimethylolpropane IIa with (meth)acrylic acid in the presence of at least one esterification catalyst C, ~~and of~~ at least one polymerization inhibitor D, and optionally ~~also of~~ a water-azeotroping solvent E to form an ester F,

b) optionally removing from the reaction mixture some or all of the water formed in a), during and/or after a),

f) optionally neutralizing the reaction mixture,

h) when a solvent E ~~was~~ is used, optionally removing ~~this~~ the solvent E by distillation, and/or

i) stripping the reaction mixture with a gas which is inert under the reaction conditions, wherein

~~the~~ a molar excess of (meth)acrylic acid to alkoxyated trimethylolpropane is at least 7.5:1, and the optionally neutralized (meth)acrylic acid present in the reaction mixture after the last process step substantially remains in the reaction mixture.

11. (Currently amended) A The process ~~as claimed in any of claims claim 8 to 10,~~ wherein the (meth)acrylic acid is not more than 75% by weight removed from the reaction mixture obtained after the process last step, which reaction mixture contains the ester F.

12. (Currently amended) A The process ~~as claimed in any of claims claim 8 to 11,~~ wherein the reaction mixture obtained after the process last step, which contains the ester F, has a DIN EN 3682 acid number of at least 25 mg of KOH/g.

13. (Currently amended) A The process ~~as claimed in any of claims claim 8 to 12,~~ wherein the reaction mixture obtained after the process last step, which contains the ester F, has a (meth)acrylic acid content of at least 0.5% by weight.

14. (Currently amended) A The process as ~~elaimed in any of elaims claim 8 to 13,~~ wherein the molar ratio of (meth)acrylic acid to alkoxyated tri-methylolpropane in ~~reaction~~ step a) is at least 15:1.

15. (Currently amended) A process for preparing a crosslinked hydrogel, comprising the steps of
k) polymerizing an ester F ~~as per any of elaims claim 1 to 7 or 10,~~ with (meth)acrylic acid, ~~with and an optionally optional~~ additional monoethylenically unsaturated ~~compounds~~ compound N and optionally ~~also~~ at least one further copolymerizable hydrophilic monomer M₁ in the presence of at least one free-radical initiator K and optionally of at least one grating base L,

l) optionally postcrosslinking the reaction mixture obtained from k),

m) drying the reaction mixture obtained from k) or l), and

n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

16. (Currently amended) A The process for preparing a crosslinked hydrogel, comprising steps a) to i) ~~as per any of claims claim 8 to 14~~ and additionally

k) polymerizing the reaction mixture from one of ~~stages~~ steps a) to i) if performed, with ~~optionally an optional~~ additional monoethylenically unsaturated ~~compounds~~ compound N and optionally ~~also~~ at least one further copolymerizable hydrophilic monomer M in the presence of at least one free-radical initiator K and optionally of at least one grafting base L,

l) optionally postcrosslinking the reaction mixture obtained from k),

m) drying the reaction mixture obtained from k) or l), and

(n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

17. (Currently amended) ~~Crosslinked~~ A crosslinked hydrogel ~~obtainable~~ prepared according to a the process ~~as per either of claims claim 15 and 16.~~

18. (Currently amended) ~~Crosslinked~~ A crosslinked hydrogel containing at least one hydrophilic monomer M in ~~copolymerized~~ polymerized form cross-linked with an ester F ~~as per any of claims claim 1 to 7 or 10.~~

19. (Currently amended) ~~Crosslinked~~ A crosslinked hydrogel containing at least one hydrophilic monomer M in ~~copolymerized~~ polymerized form cross-linked with a reaction mixture which contains an ester F and is ~~obtainable~~ prepared according to a the process of ~~claims~~ claim 8 ~~to~~ 14.

20. (Cancelled)

21. (Currently amended) A composition ~~of matter~~ comprising

from 0.1% to 40% by weight of at least one ester F ~~as per any of claims claim 1 to 7~~ and (meth)acrylic acid,

0.5-99.9% by weight of at least one hydrophilic monomer M,

0-10% by weight of at least one esterification catalyst C,

0-5% by weight of at least one polymerization inhibitor D, and

0-10% by weight of a solvent E,

with the proviso that the sum total is always 100% by weight.

22. (Currently amended) A The composition of ~~matter as per~~ claim 21, further comprising a diluent G ~~ad 100% by weight~~.

23. (Currently amended) ~~Crosslinked~~ A crosslinked hydrogel ~~obtainable prepared~~ from a composition of ~~matter as per~~ claim 21 ~~or 22~~ and additionally

l) ~~optionally posterosslinking the reaction mixture obtained,~~ postcrosslinked

m) ~~drying the reaction mixture obtained directly or from l), and~~

n) ~~optionally grinding and/or sieving the reaction mixture obtained directly or from l) or m).~~

24. (Cancelled)

25. (Currently amended) ~~Crosslinked~~ A crosslinked hydrogel ~~as per any of claims 17, claim 18, 19 or 23~~ having a residual crosslinker content of less than 10 ppm, ~~preferably less than 8 ppm, and more preferably less than 5 ppm.~~

26. (Cancelled)

27. (New) The ester F of claim 1 wherein R1, R2, and R3 are H.

28. (New) The process of claim 10 wherein the (meth)acrylic acid is not more than 75% by weight removed from the reaction mixture obtained after the process last step, which reaction mixture contains the ester F.

29. (New) The process of claim 10 wherein the reaction mixture obtained after the last process step, which contains the ester F, has a DIN EN 3682 acid number of at least 25 mg of KOH/g.

30. (New) The process of claim 10 wherein the reaction mixture obtained after the last process step, which contains the ester F, has a (meth)acrylic acid content of at least 0.5% by weight.

31. (New) The process of claim 10 wherein the molar ratio of (meth)acrylic acid to alkoxyolated trimethylolpropane in step a) is at least 15:1.

32. (New) An article comprising a cross-linked hydrogel of claim 18.

33. (New) The article of claim 32 selected from the group consisting of a hygiene article, a packaging material, and a nonwoven.

34. (New) The crosslinked hydrogel of claim 25 having a residual crosslinked content of less than 5 ppm.

35. (New) A process for preparing a crosslinked hydrogel, comprising the steps of

- k) polymerizing an ester F of claim 10 with (meth)acrylic acid and an optional additional mono-ethylenically unsaturated compound N and optionally at least one further copolymerizable hydrophilic monomer M, in the presence of at least one free-radical initiator K and optionally of at least one grating base L,
- l) optionally postcrosslinking the reaction mixture obtained from k),
- m) drying the reaction mixture obtained from k) or l), and
- n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).